

Hydrophobic Pyrogenic Silicas

	Standard Types											
	AEROSIL® R 972	AEROSIL® R 974	AEROSIL® R 104	AEROSIL® R 106	AEROSIL® R 202	AEROSIL® R 805	AEROSIL® R 812	AEROSIL® R 812.5	AEROSIL® R 816	AEROSIL® R 7200	AEROSIL® R 8200	
Behaviour towards Water	hydrophobic											
Appearance	white powder											
Spec. Surface (BET) ¹⁾	m ² /g	110 ± 20	170 ± 20	150 ± 25	250 ± 30	100 ± 20	150 ± 25	260 ± 30	220 ± 25	190 ± 20	150 ± 25	160 ± 25
Average Primary Particle Size	nm	16	12	12	7	14	12	7	7	-	12	-
Tapped Density (approx. value) ²⁾	g/l	50	50	50	50	60	60	60	60	60	230	140
Densified Material * (suffix „V“) ¹¹⁾	g/l	90	90	90	-	-	-	-	-	-	-	-
Densified Material * (suffix „W“) ¹²⁾	g/l	-	-	-	-	90	90	90	-	-	-	-
Loss on Drying ³⁾ (2 hours 105 °C) when leaving the plant	wt.-%	≤ 0.5	≤ 0.5	-	-	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 1.0	≤ 1.5	≤ 0.5
Loss on Ignition ^{4) 7)} (2 hours 1000 °C)	wt.-%	≤ 2.0	≤ 2.0	-	-	4.0 - 6.0	5.0 - 7.0	1.0 - 2.5	1.5 - 3.0	-	6.0 - 11.0	-
C-Content	wt.-%	0.6 - 1.2	0.7 - 1.3	1.0 - 2.0	1.5 - 3.0	3.5 - 5.0	4.5 - 6.5	2.0 - 3.0	3.0 - 4.0	0.9 - 1.8	4.5 - 6.5	2.0 - 4.0
pH-Value ^{5) 13)}	wt.-%	3.6 - 4.4	3.7 - 4.7	≥ 4.0	≥ 3.7	4.0 - 6.0	3.5 - 5.5	5.5 - 7.5	5.5 - 7.5	4.0 - 5.5	4.0 - 6.0	≥ 5.0
SiO ₂ -Content ⁶⁾	wt.-%	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8	≥ 99.8
Al ₂ O ₃ -Content ⁶⁾	wt.-%	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.050	≤ 0.05
Fe ₂ O ₃ -Content ⁶⁾	wt.-%	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.010	≤ 0.01	≤ 0.003	≤ 0.01
TiO ₂ -Content ⁶⁾	wt.-%	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030	≤ 0.030
HCl-Content ^{8) 10)}	wt.-%	≤ 0.050	≤ 0.100	≤ 0.020	≤ 0.025	≤ 0.025	≤ 0.025	≤ 0.025	≤ 0.025	≤ 0.025	≤ 0.010	≤ 0.025
Unit Weight (netto) ¹¹⁾	kg	10	10	10	10	10	10	10	10	10	15	15

kg
he data represent typical values and not
cobation parameters.

7) Based on dried substance (2 hours at 105 °C)
8) Based on dried substance (2 hours at 1000 °C)
10) HCl-Content is part of ignition packaging
11) V Material is supplied in 20kg bags

12) VV-Material is only available ex Rhodheiden plant
13) Water: Methanol = 1:1

Different densification technologies